

Date: Wednesday, 09/01/2008 8:18:46 AM
 User: Jean-Luc Menard

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services			Drawing Name	: 03.250 SUPPORT		
Job Number	: 35478			Part Number	: D29401		
Estimate Number	: 10387			Drawing Number	: D2940 REV B		
P.O. Number	:			Project Number	: N/A		
This Issue	: 09/01/2008 S.O. No. :			Drawing Revision	: B		
Prsht Rev.	: NC			Material	:		
First Issue	: 31/10/2007 Type : MACHINED PARTS			Due Date	: 20/11/2007 Qty: 10 Um: Each		
Previous Run	: 32780						
Written By	<i>JLM 08.01.09</i>						
Checked & Approved By							
Comment	: Est. C 02.11.26 Reformat; Added P/O KJ Est Rev:D Added priming as per Rev B 07-04-30 JLM						

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	D610407	17-4 SS Roundbar 4.50"OD
		Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s). 17-4 SS Roundbar 4.50"OD 35478 10 D6104-007 BATCH: 35478-007 08/01/08-12-13-14
2.0	35478A	ROUND BILLET 17-4
		Comment: Sub-Component ROUND BILLET 17-4 D6104-007 B 08/01/08-12-13-14
3.0	DOOSAN LATHE	DOOSAN LATHE
		Comment: DOOSAN LATHE Turn blank for Haas as per Folio FA079 08/01/08-12-13-14
4.0	QC1	INSPECT ALL DIM TO DIM SHEET
		Comment: INSPECT ALL DIM TO DIM SHEET 08/03/18 9
5.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
		Comment: HAAS 1- Machine as per Folio FA079 2- Tumble & Deburr <i>FE 08-09-08</i>

Date: Wednesday, 09/01/2008 8:18:46 AM
User: Jean-Luc Menard

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 03.250 SUPPORT

Job Number: 35478

Part Number: D29401

Job Number:



Seq. #: Machine Or Operation:

Description :

6.0 QC1 INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

SG 08-04-25



7.0 QC8 SECOND CHECK



Comment: SECOND CHECK

ML 08/04/18

30 min.

22/04/2008

13.33

S.089

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

F

DART AEROSPACE LTD

Work Order: 39478

Description: Ø3.250 Support

Part Number: D2940-1

Inspection Dwg: D2940 Rev. B

Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. B / DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
Lathe Section									
A	3.211	3.216		3.215	3.215	3.215	3.215		
B	4.946	4.966		4.956	4.956	4.956	4.956		
C	0.718	0.738		.726	.726	.727	.726		
D	0.090	0.110		.103	.103	.103	.100		
E	3.564	3.584		3.574	3.574	3.574	3.574		
F	0.022	0.042		.03	.03	.03	.03		
G	3.444	3.464		3.454	3.451	3.454	3.455		
H	0.112	0.132		.122	.122	.122	.122		
I	2.170	2.190		2.18	2.18	2.18	2.18		
J	4.451	4.471		4.461	4.461	4.461	4.461		
K	0.413	0.433		.423	.423	.423	.423		
L	0.913	0.933		.923	.923	.923	.923		
M									
N									
HAAS Section									
AA	0.240	0.260		.250	.250	.250	.250		
AB	0.490	0.510		.500	.500	.500	.500		
AC	0.140	0.160		.150	.151	.151	.151		
AD	3.510	3.530		3.518	3.519	3.525	3.526		
AE	1.633	1.673		1.657	1.653	1.659	1.660		
AF	1.493	1.513		1.504	1.503	1.503	1.502		
AG	0.040	0.060		.051	.052	.051	.051		
AH	0.188	0.193		.189	.189	.189	.189		
AI	0.140	0.160		.152	.151	.151	.151		
AJ	2.518	2.538		2.538	2.538	2.538	2.538		
AK	0.040	0.060		.050	.052	.050	.050		
AL	0.010	0.020		.011	.011	.011	.011		
AM	0.140	0.160		.152	.151	.152	.150		
AN	0.350	0.450		.380	.380	.380	.380		
AO	0.240	0.260		.250	.250	.250	.250		
AP	0.150	0.170		.151	.151	.156	.156		
AQ	0.053	0.073		.063	.063	.063	.063		
AR	101.64	105.64		103.64	103.64	103.64	103.64		
AS	0.260	0.267		.260	.260	.260	.260		
AT	0.053	0.073		.063	.063	.063	.063		
AU	4.118	4.138		4.129	4.126	4.122	4.129		
AV									
Accept/Reject									

Measured by: *JP*
 Date: *08/03/18* / *08/04/15*

Audited by: *AM*
 Date: *08/04/18*

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM <i>JK</i>	<i>EE</i>

DART AEROSPACE LTD

Work Order: 35478

Description: Ø3.250 Support

Part Number: D2940-1

Inspection Dwg: D2940 Rev. B

Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. B / DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	15	26	37	48	By	Date
Lathe Section									
A	3.211	3.216		3.215	3.215	3.215	3.215		
B	4.946	4.966		4.956	4.956	4.956	4.956		
C	0.718	0.738		.728	.728	.728	.728		
D	0.090	0.110		.101	.103	.106	.100		
E	3.564	3.584		3.574	3.574	3.574	3.574		
F	0.022	0.042		.03	.03	.03	.03		
G	3.444	3.464		3.454	3.453	3.453	3.454		
H	0.112	0.132		.122	.122	.122	.122		
I	2.170	2.190		2.18	2.18	2.18	2.18		
J	4.451	4.471		4.461	4.461	4.461	4.461		
K	0.413	0.433		.423	.423	.423	.423		
L	0.913	0.933		.923	.923	.923	.923		
M									
N									
HAAS Section									
AA	0.240	0.260		.250	.250	.250	.250		
AB	0.490	0.510		.500	.500	.500	.500		
AC	0.140	0.160		.150	.150	.150	.150		
AD	3.510	3.530		3.526	3.526	3.526	3.526		
AE	1.633	1.673		1.659	1.659	1.659	1.659		
AF	1.493	1.513		1.501	1.501	1.501	1.501		
AG	0.040	0.060		.050	.050	.050	.050		
AH	0.188	0.193		.190	.190	.190	.190		
AI	0.140	0.160		.143	.143	.143	.143		
AJ	2.518	2.538		2.528	2.528	2.528	2.528		
AK	0.040	0.060		.047	.047	.047	.047		
AL	0.010	0.020		.010	.010	.010	.010		
AM	0.140	0.160		.147	.147	.147	.147		
AN	0.350	0.450		.380	.380	.380	.380		
AO	0.240	0.260		.250	.250	.250	.250		
AP	0.150	0.170		.158	.158	.158	.158		
AQ	0.053	0.073		.063	.063	.063	.063		
AR	101.64	105.64		103.64	103.64	103.64	103.64		
AS	0.260	0.267		.260	.260	.260	.260		
AT	0.053	0.073		.063	.063	.063	.063		
AU	4.118	4.138		4.128	4.128	4.128	4.128		
AV									
Accept/Reject									

Measured by: *R29* *REC*
 Date: *08/03/18* *08:04:18*

Audited by: *mk*
 Date: *08/04/18*

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM <i>dk</i>	<i>PE</i>

DART AEROSPACE LTD

Work Order:

35478

Description: Ø3.250 Support

Part Number:

D2940-1

Inspection Dwg: D2940 Rev. B

Page 1 of 1

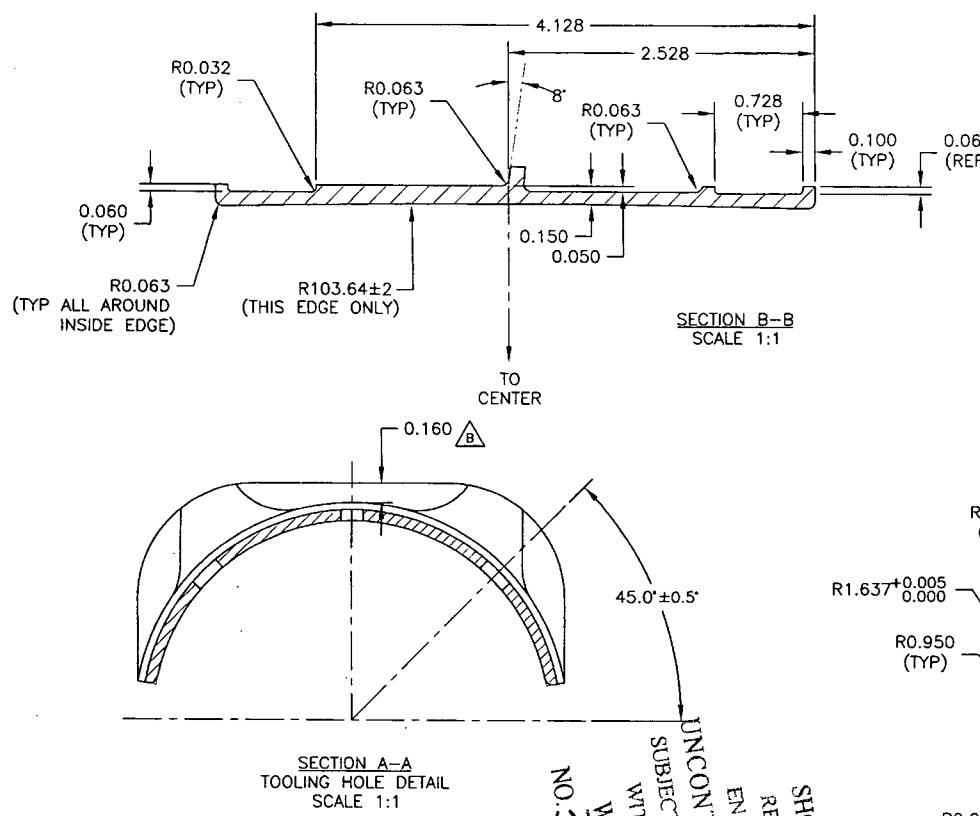
Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. B / DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	XP	2	3	4	By	Date
Lathe Section									
A	3.211	3.216							
B	4.946	4.966							
C	0.718	0.738		.727	.726	.721	.726		
D	0.090	0.110		.102	.102	.101	.100		
E	3.564	3.584		3.574	3.574	3.574	3.574		
F	0.022	0.042		.03	.06	.06	.08		
G	3.444	3.464		3.454	3.454	3.454	3.454		
H	0.112	0.132		.122					
I	2.170	2.190		2.18	2.18	2.18	2.18		
J	4.451	4.471		4.461					
K	0.413	0.433		.423					
L	0.913	0.933		.923					
M									
N									
HAAS Section									
AA	0.240	0.260		.250					
AB	0.490	0.510		.500					
AC	0.140	0.160		.150					
AD	3.510	3.530		3.520					
AE	1.633	1.673		1.653					
AF	1.493	1.513		1.501					
AG	0.040	0.060		.050					
AH	0.188	0.193		.188					
AI	0.140	0.160		.150					
AJ	2.518	2.538		2.528					
AK	0.040	0.060		.050					
AL	0.010	0.020		.010					
AM	0.140	0.160		.150					
AN	0.350	0.450		.400					
AO	0.240	0.260		.250					
AP	0.150	0.170		.160					
AQ	0.053	0.073		.063					
AR	101.64	105.64		103.64					
AS	0.260	0.267		.260					
AT	0.053	0.073		.063					
AU	4.118	4.138		4.128					
AV									
Accept/Reject									

Measured by: RP / 186
 Date: 08/03/18 / 04.04.18

Audited by: DM
 Date: 08/04/18

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM <u>RP</u>	<u>E</u>



D2940-1

1) MATERIAL: 17-4 PH STAINLESS STEEL
HEAT TREAT TO H900 CONDITION
(900°F FOR 1 HR, AIR COOL)
MIN UTS = 170 KSI (38 HRc)

2) IDENTIFY WITH DART LOGO AND PART NUMBER IN THIS AREA
WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP

3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020

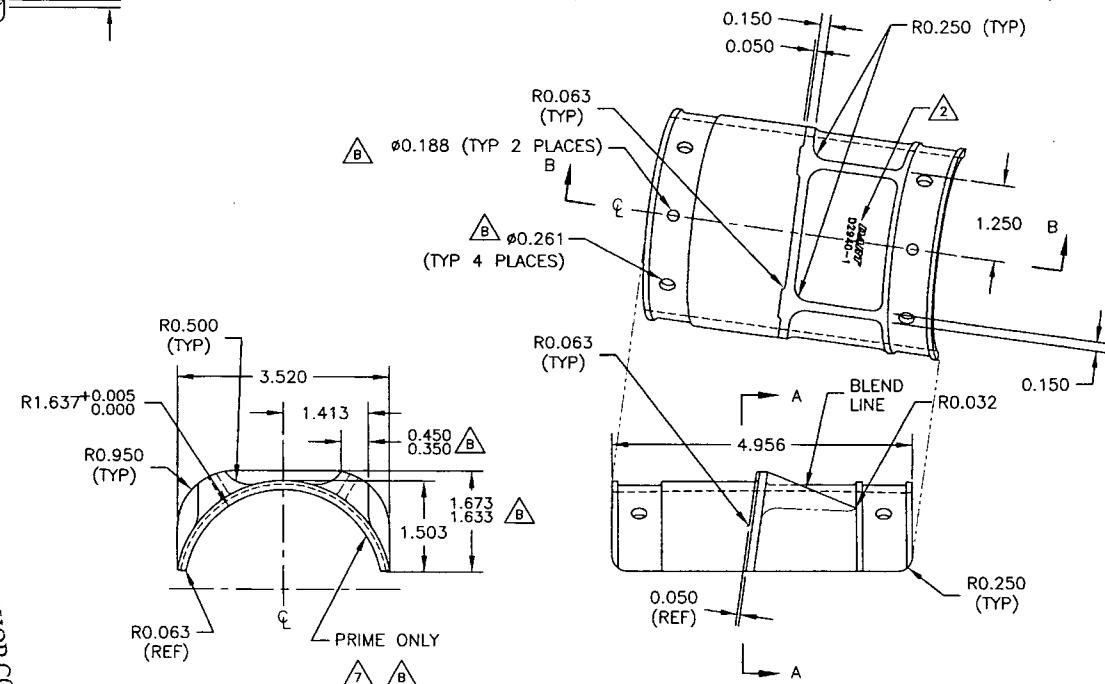
4) PART IS SYMMETRIC ABOUT CENTERLINE

5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

6) ALL DIMENSIONS ARE IN INCHES

7) FINISH: POWDER COAT WHITE (REF 4.3.5.2) PER DART QSI 005 4.3
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2

NO. 35418
WORK ORDER
SUBJECT TO AMENDMENT
WITHOUT NOTICE
UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY



COPYRIGHT © 2001 BY DART AEROSPACE LTD.

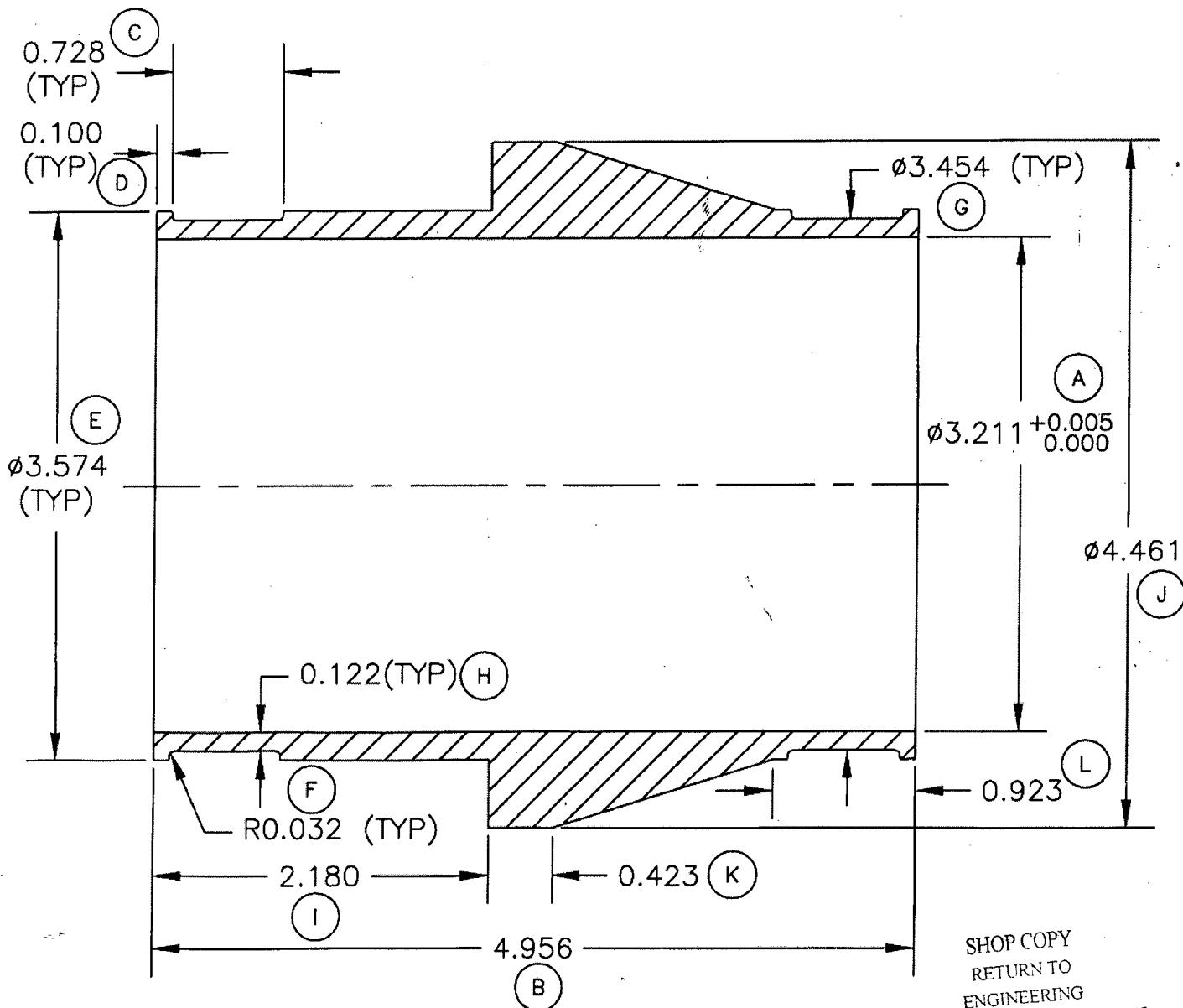
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL
AND IS SUPPLIED ON THE EXPRESS CONDITION
THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

B	07.03.16	UPDATE PER NCR 642, PRIME INSIDE
A	01.01.10	NEW ISSUE
DESIGN	DRAWN BY	DART AEROSPACE LTD. HAWKSBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2940 REV. B
DATE		SHEET 1 OF 1 TITLE Ø3.250 SUPPORT SCALE 1:2
07.03.16		

DART

DESIGN RF	DRAWN BY KJ	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. DSK 081	REV. B SHEET 1 OF 1
DATE 03.06.24		TITLE TURNING DETAIL FOR D2940-1	SCALE 1:1
A	03.03.07	NEW ISSUE	
B	03.06.24	ADDED 4.956 DIMENSION	

RELEASED
03.07.01



D2940-1 TURNING DETAIL

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 35478

Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2940-1 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/03/18		St tool change before moving to safe position. tool came in contact with workpiece and scrapped workpiece. R.C. Programmed error, tool came in too far on the outside surface, while turning. New program on Doesan		Scrap and Destroy Qty +1	08/03/18	08/03/18	<i>Initial 08/03/18</i>	<i>Initial 08/03/18</i>
			08/04/20	NO Replace / Program was changed to prevent issue.			<i>Initial 08/04/20</i>	<i>Initial 08/04/20</i>

NOTE: Date & initial all entries